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INTRODUCTION

This chart book provides information on recent trends in particular health status indicators for Maryland residents with comparisons to the nation as a whole. These indicators were chosen because of their significant impact on the public's health and health care spending and include health care diagnoses, causes of death, and screening procedures. Areas of major concern for the state in 1999 include the high rate of heroin use and the increasing prevalence of diabetes and obesity. Other topics covered in this chart book have been subjects of particular concern in Maryland over the past decade, including children's health, women's health, HIV/AIDS, and certain causes of mortality, particularly homicide and cancer. Attention is also given to health disparities among minorities, with a particular emphasis on the troubling difference in stroke mortality rates among racial groups in the state. The data presented here focus on notable shifts in trends, marking either improvement or decline. For instance, one improvement indicated by data released in 1999 was the record low in the numbers of teen births and pregnancies in Maryland. The trends observed in these health status indicators highlight progress or health concerns worthy of increased attention.

Information for this chart book was obtained from analyses conducted by a wide variety of sources, including the United States Census Bureau, Centers for Disease Control and Prevention, National Center for Health Statistics, Substance Abuse and Mental Health Services Administration, Maryland Cancer Registry, and Maryland Vital Statistics Administration. Analyses for the subsection on obesity were conducted by the Maryland Health Care Commission specifically for this chart book with data obtained from the Behavioral Risk Factor Surveillance System, 1996-1999.

Population Size & Growth

- During the 1990s, Maryland's population increased by 8.2 percent to a total of 5,171,634 by July 1999.¹
- The greatest population increases occurred in the following counties: Calvert (43 percent), Howard (29.8 percent), Frederick (27.1 percent), and Worcester (24.7 percent).¹
- Three jurisdictions showed population decreases: Baltimore City, Allegany County, and Dorchester County. Baltimore City averaged a loss of 12,000 residents a year during the 1990s.¹
- Five counties showed growth rates that were less than the state average of 8.2 percent: Baltimore, Garrett, Kent, Somerset, and Wicomico.¹

Urban/Rural Population

- In 1999, 93.0 percent of all Maryland residents lived in metropolitan areas, compared to 81.0 percent of the U.S. population.²
- Baltimore City lost 103,000 residents during the 1990s, resulting in a 14.0 percent decrease in population. Most of this loss was due to the exodus of 93,000 whites, a decrease of one-third of the white population. The city's black population decreased by 2.2 percent. Baltimore's Hispanic population grew by 900 people to a total of 8,514 during the decade.¹

Race & Ethnicity

- Sixty seven percent of the state's population growth during the 1990s was due to the 21.6 percent increase in blacks. Maryland's proportion of whites decreased from 71.7 percent in 1990 to 67.5 percent in 1999.¹

- The greatest growth in minority populations occurred in the following counties: Montgomery, Prince George's, Baltimore, Anne Arundel, Howard, and Harford. In Baltimore County, the minority population increased by 40.0 percent, while the total population grew by 4.6 percent. In Carroll County, minorities increased by 63.0 percent, compared to an increase of 23.6 percent for the total county population.¹

Foreign Immigration

- The minority population boom in suburban Maryland counties has been fueled by foreign immigration, particularly in the National Capital Area. For instance, 70.0 percent of Montgomery County's growth and 50.0 percent of Prince George's County's increase are attributable to foreign immigration.¹ Nationally, foreign immigration has helped to increase the Asian population by 43.0 percent and the Hispanic population by 38.8 percent.³ Maryland had the tenth highest net international migration in the country between 1990 and 1999.⁴

References

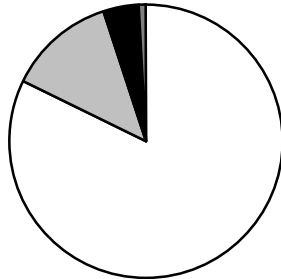
1. "Minority Populations Up Sharply in Suburbs, Census Figures Show." *Baltimore Sun*. August 31, 2000.
2. U.S. Census Bureau. Ferrett (Current Population Survey, July 1999). Ferret.bls.census.gov
3. "Nevada Fastest-Growing State in 1990s." *Baltimore Sun*. August 30, 2000.
4. U.S. Census Bureau. "State Population Estimates and Demographic Components of Population Change: April 1, 1990 to July 1, 1999." www.census.gov/population/estimates/state/st-99-2.txt
5. U.S. Census Bureau. "Population Estimates for States by Race and Hispanic Origin: July 1, 1999." www.census.gov/population/estimates/state/srh/srh99.txt
6. U.S. Census Bureau. "Population Estimates for the U.S., Regions, Divisions, and States by 5-Year Age Groups and Sex: Time Series Estimates, July 1, 1990 to July 1, 1999 and April 1, 1990 Census Population Counts." www.census.gov/population/estimates/state/st-99-08.txt

Population Estimates: July 1999^{5,6}

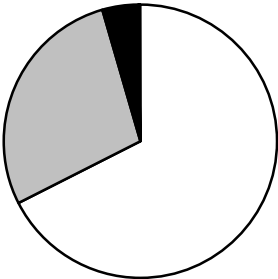
US

MD

Race

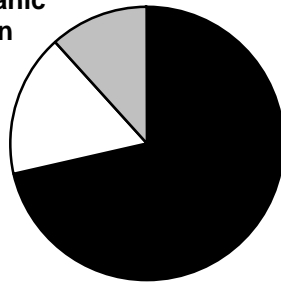


- White (82.4%)
- Black (12.8%)
- Asian/Pac Isl (4.0%)
- Others (0.9%)

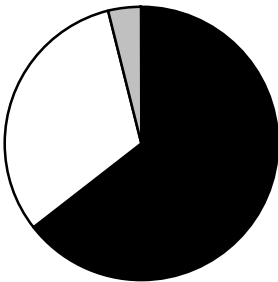


- White (67.5%)
- Black (28.1%)
- Asian/Pac Isl (4.0%)
- Others (0.4%)

Hispanic Origin

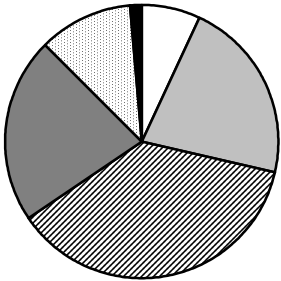


- White Non-Hispanic (71.5%)
- Non-White Non-Hispanic (16.7%)
- Hispanic (11.8%)

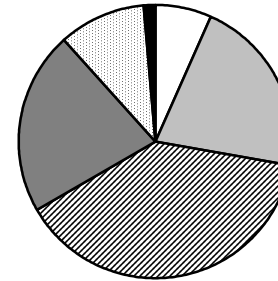


- White Non-Hispanic (64.3%)
- Non-White Non-Hispanic (31.8%)
- Hispanic (3.9%)

Age

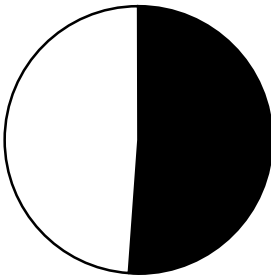


- Under 5 (6.9%)
- 5-19 (21.7%)
- 20-44 (37.0%)
- 45-64 (21.7%)
- 65-84 (11.1%)
- 85+ (1.5%)

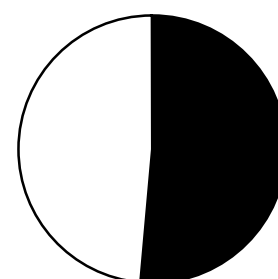


- Under 5 (6.7%)
- 5-19 (21.2%)
- 20-44 (38.8%)
- 45-64 (21.8%)
- 65-84 (10.3%)
- 85+ (1.3%)

Sex



- Female (51.1%)
- Male (48.9%)



- Female (51.4%)
- Male (48.6%)

Teen Pregnancies

- During the period 1995-1997, national and state-specific teen pregnancy rates decreased, continuing a trend that began in the early 1990s. Nationally, between 1995 and 1997, the number of pregnancies among females aged 15-19 years decreased by 3.1 percent, and the pregnancy rate for this group declined by 7.8 percent, from 98.3 per 1,000 in 1995 to 90.7 in 1997.¹

- The greatest decline in the pregnancy rate for 15-19 year olds among the states for which data were available was 19.8 percent in Maryland.¹

- Pregnancy rates for 15-19 year olds were higher for blacks than for whites for all 30 states that reported data for both groups, with the exception of New Mexico. Between 1995 and 1997, pregnancy rates for Maryland whites decreased by 24.6 percent compared to a decrease of 15.8 percent for blacks.¹

- The decline in pregnancy rates can be attributed to stable levels of sexual experience and activity as well as effective contraception use. Additionally, increasing usage of long-acting hormonal methods initiated in the early 1990s has played a role in the decline.¹

Teen Births

- Nationally, the 1999 birth rate for teenagers is at a record low. For females aged 15-19 years, the birth rate was 49.6 per 1,000 births, a 3.0 percent decline from the 1998 rate (51.1), and a 20.0 percent decline from the 1991 rate (62.1).² In Maryland, the 1999 birth rate was 42.5 per 1,000 births, a decline of 1.6 percent from 1998.^{3,4,5}

- In 1999, all racial and hispanic groups continued to show declines in their national birth rates for 15-19 year olds. Between 1998 and 1999, the greatest declines were for American Indians (6.0 percent, with a

1999 rate of 67.7 per 1,000), blacks (5.0 percent, with a 1999 rate of 81.1), and non-Hispanic white teenagers (3.0 percent, with a 1999 rate of 34.1 per 1,000). The birth rate for Hispanic teenagers was the highest of all subgroups, with a decline of less than 1.0 percent, to 93.1. Nationally, between 1991 and 1999, the greatest decline in teenage birth rates was seen for blacks (30.0 percent), and the smallest decline was seen for Hispanic women (13.0 percent). Between 1994 and 1999, Hispanic birth rates have outpaced black birth rates every year.²

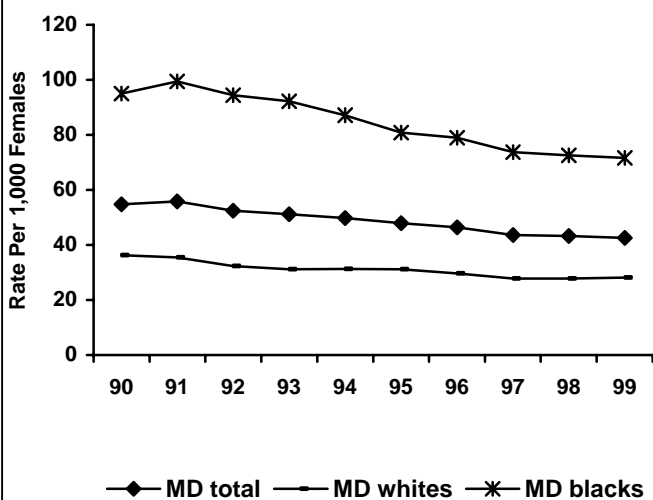
- In 1999, the Maryland birth rate for white teens increased by 1.4 percent to 28.2 per 1,000 births. The rate for blacks decreased by 1.2 percent to 71.7 per 1,000 births.^{3,5}

References

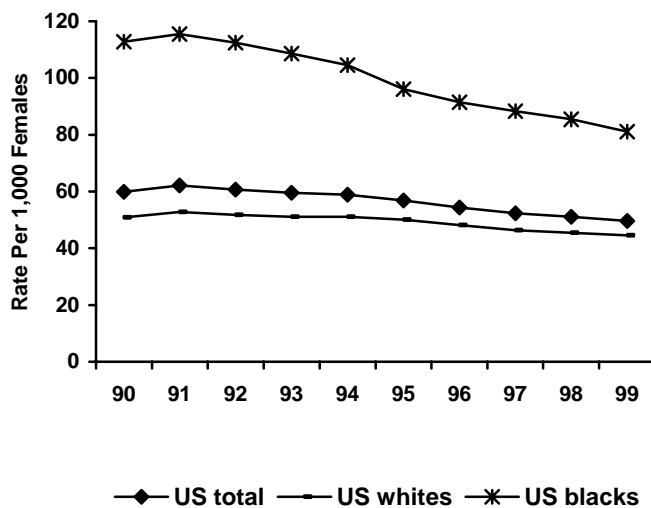
- "National and State-Specific Pregnancy Rates Among Adolescents - United States, 1995-1997." *Morbidity and Mortality Weekly Report* 49(27):605-611. July 14, 2000.
- Curtin SC & Martin JA, & Martin JA. "Births: Preliminary Data for 1999." *National Vital Statistics Reports* 48(14). August 8, 2000.
- Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. *Maryland Vital Statistics 1999 Preliminary Report*. August, 2000.
- Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. Population source is the U.S. Census Bureau.
- U.S. Census Bureau. "Population Estimates for States by Age, Race, Sex, and Hispanic Origin: July 1, 1999." Internet Release Date: www.census.gov/population/estimates/state/srh/srh99.txt
- "State-Specific Pregnancy Rates Among Adolescents - United States, 1992-1995." *Morbidity and Mortality Weekly Report*, 47(24):497-505. June 26, 1998.

Birth Rates for Teens 15-19 Years of Age

Maryland: 1990-1999⁴

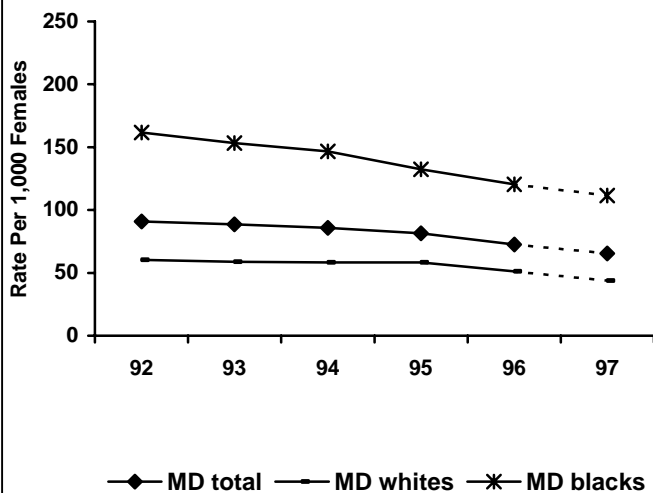


United States: 1990-1999²

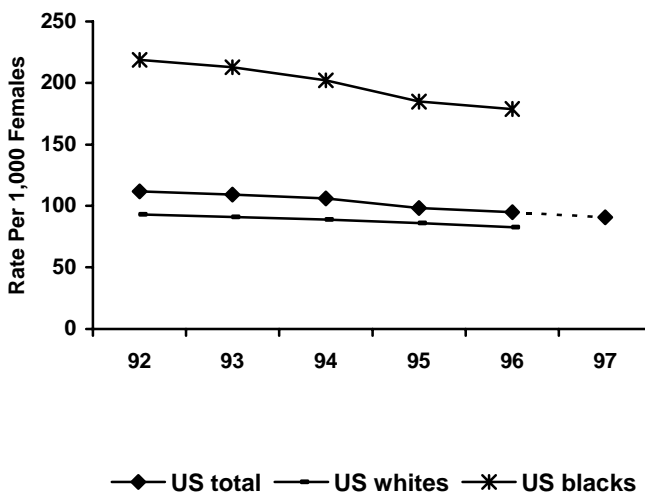


Pregnancy Rates for Teens 15-19 Years of Age

Maryland: 1992-1996
and Estimated for 1997^{1,6}



United States: 1992-1996
and Estimated for 1997^{1,6}



Low Birthweight (LBW) Babies

- Nationally, 7.6 percent of all babies born in 1999 were LBW, unchanged from 1998. The percent LBW remained the same for births to non-Hispanic whites (6.6), blacks (13.1), and Hispanic whites (6.4).¹
- In Maryland, the proportion of LBW babies increased across major sectors of the population. For all births, the percent LBW infants was 9.1, compared to 8.7 in 1998. The percent LBW infants was 6.7 percent for white births (6.4 in 1998) and 13.7 percent for black births (13.0 in 1998).²

Infant Mortality

- Nationally, the infant mortality rate remained unchanged between 1997 and 1998 at 9.2 deaths per 1,000 live births, the lowest rate ever recorded. While the white infant mortality rate remained the same (6.0), the rate for blacks increased slightly (14.3 in 1998 compared to 14.2 in 1997). The ratio of black-to-white infant mortality rates was 2.4.³
- For the general population in Maryland, the infant mortality rate remained the same in both 1997 and 1998 at 8.6 per 1,000 live births. The rate increased for whites from 5.3 in 1997 to 5.5 in 1998 but decreased for blacks from 16.1 in 1997 to 15.4 in 1998. Across the state, the infant mortality rate ranged from 3.3 in Howard County to 16.1 in Somerset County.⁴

Prenatal Care (PNC)

- Nationally, between 1989 and 1998, the percentage of women with delayed PNC or no PNC decreased by 39.1 percent from 6.4 percent in 1989 to 3.9 percent in 1998. In Maryland, the percentage of women who received late or no PNC^a declined by 25.6 percent between 1989 (3.9) and 1998 (2.9).⁴

^a Maryland figures exclude women for whom timing of prenatal care was unknown. Late care refers to prenatal care which begins during the third trimester of pregnancy.

Vaccine Coverage

- From 1998 to 1999, national coverage with the combined vaccination series 4:3:1:3^b and 4:3:1^c did not change significantly. For children between the ages of 19 and 35 months, national coverage was 79.9 percent in 1999. In Maryland, comparable coverage was 80.5 percent.⁶
- Both nationally and in Maryland, vaccination coverage was lower among black children (US: 75.1 and MD: 75.7 percent) than among whites (US: 82.0 and MD: 84.6 percent).⁷

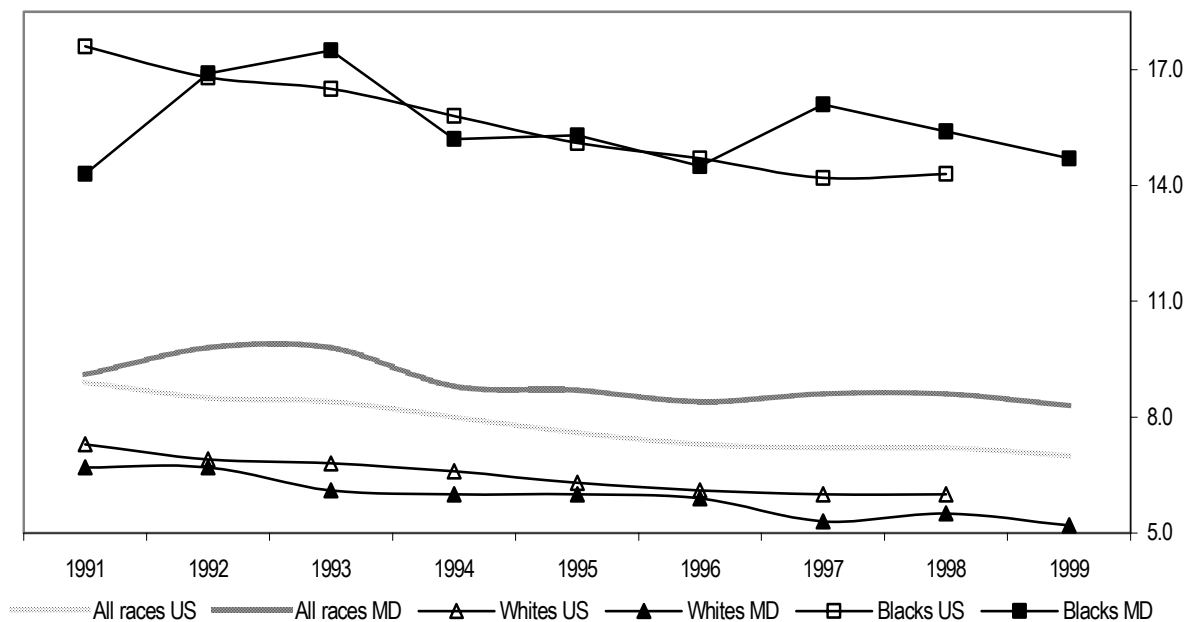
References

1. Curtin SC & Martin JA. "Births: Preliminary Data for 1999." *National Vital Statistics Reports* 48(14). August 8, 2000.
2. Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. *Maryland Vital Statistics 1999 Preliminary Report*. August, 2000.
3. Murphy SL. "Deaths: Final Data for 1998." *National Vital Statistics Reports* 48(11). July 24, 2000.
4. Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. *Maryland Vital Statistics Annual Report 1998*.
5. "Entry into Prenatal Care - United States, 1989-1997." *Morbidity and Mortality Weekly Review* 49(18):393-398. May 12, 2000.
6. "National, State, and Urban Area Vaccination Coverage Levels Among Children Aged 19-35 Months - United States, 1999." *Morbidity and Mortality Weekly Report* 49 (26):585-589. July 7, 2000.
7. Centers for Disease Control and Prevention, National Immunization Survey. "Estimated Vaccination Coverage with 4:3:1 Among Children 19-35 Months of Age by Race/Ethnicity and by State and Immunization Action Plan Area -- US, National Immunization Survey, 1999."
8. "Births, Marriages, Divorces, and Deaths: Provisional Data for July 1999." *National Vital Statistics Reports* 48(9). June 26, 2000.

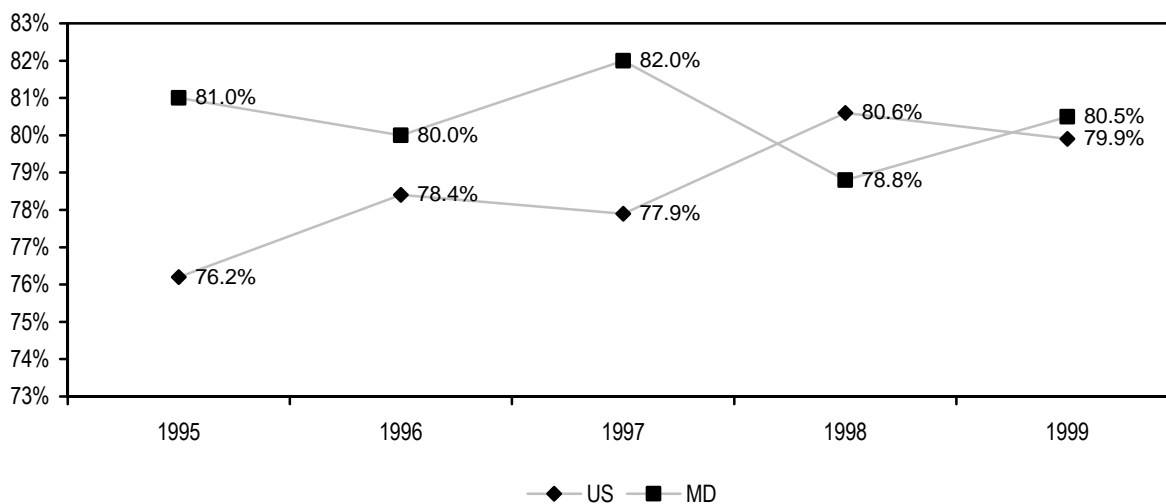
^b Four doses of any diphtheria and tetanus toxoids and pertussis vaccine, 3 doses of poliovirus vaccine, 1 dose of measles-containing vaccine (MCV), and 3 doses of *Haemophilus influenzae* type b vaccine.

^c Four doses of any diphtheria and tetanus toxoids and pertussis vaccine, 3 doses of poliovirus vaccine, and 1 dose of MCV.

Infant Mortality Rates by Race for Maryland and the U.S., 1991-1999
Deaths Per 1,000 Births^{2,3,4,8}



4:3:1 Vaccination Coverage Levels Among Children Aged 19-35 Months: MD and US^{6,7}



The National Women's Law Center recently reported that the nation and individual states need to devote more attention and resources toward improving the health of women. Disparities in women's health exist on several levels, including state, race, ethnicity, socioeconomic status, and disability. States vary greatly in their adoption of policies and programs to improve the health of women.¹

- The National Women's Law Center found that inadequate health insurance coverage is a serious obstacle to women's access to health care.¹ According to an average of 1997 and 1999 data from the Behavioral Risk Factor Surveillance Survey, 14.7 percent of American women had no health insurance in those years, compared to 12.0 percent of Maryland's female residents.²

- Neither the U.S. nor the states have widened access to key health care services and health care providers, but the access gap varies by state. For instance, just 2.2 percent of Maryland's population live in medically underserved areas, the lowest percentage among all states, compared to 24.0 percent of the population of Louisiana, the highest percentage.³

- The U.S. and the individual states are just beginning to use preventive and health-promoting measures to improve women's health.¹ In 1999, 4.9 percent of U.S. women aged 18 and older reported that they never had a Pap smear compared to 5.9 percent of Maryland females. In 1998, the percentage of Maryland women aged 50 and over who reported having a mammogram in the past two years exceeded the national percentage (80.8 versus 75.2).¹

- States demonstrate mixed progress in their attempts to improve key health conditions and reduce diseases and causes of death commonly faced by women.¹ Between 1995 and 1997, death rates per 100,000 females for heart disease and stroke were lower in Maryland (96.8, 24.3) than the

U.S. (98.0, 24.5). However, rates for lung cancer and breast cancer deaths were higher in Maryland (29.9, 21.9) than in the U.S. (26.9, 20.2).⁴

- The percentage of Maryland females with chronic conditions exceeds the national counterpart. For instance, 25.5 percent of Maryland females reported having high blood pressure compared to 24.7 of the nation's women in 1999. Additionally, 7.5 percent of females in Maryland had diabetes in 1999 compared to 5.5 percent of women in the United States.² The AIDS rate per 100,000 females in Maryland, 20.8, far exceeded the rate of 9.3 for the nation's females.⁵

- Neither the nation nor the states devote enough attention to women's reproductive health, mental health and the violence that women confront.¹

- The report by the National Women's Law Center suggests that the U.S. and the individual states should attend to the economic and educational disparities that underlie the disparities in women's health. The report indicates that women in Maryland tend to be at an economic and educational advantage over the typical American female.¹

- The majority of states, including Maryland, were given the grade "unsatisfactory," on a 3-point scale that ranged from "satisfactory" to "fail." Maryland ranked 25 among all states in the health of its female residents.¹

References

1. National Women's Law Center. *Making the Grade on Women's Health: A National and State-by-State Report Card*. August, 2000.
2. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance Survey 1999.
3. American Association of Retired Persons. *Reforming the Health Care System: State Profiles, 1999*. Washington, D.C.: AARP, 1999.
4. National Center for Health Statistics, 1995-1997.
5. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report* 11(2). December, 1999.

Health Measures for Women: MD and US¹

	Maryland	United States
Screening		
Pap Smears (%)	89.2	84.9
Mamograms (%)	80.8	75.2
Colorectal Screening (%)	32.2	37.7
Prevention		
No Leisure-Time Physical Activity (%)	21.2	29.9
Overweight (%)	33.4	31.4
Eating 5 Fruits & Vegetables a Day (%)	34.2	27.8
Smoking (%)	20.7	20.8
Binge Drinking (%)	3.1	6.7
Key Causes of Death		
Heart Disease (Per 100,000)	96.8	98.0
Stroke (Per 100,000)	24.3	24.5
Lung Cancer (Per 100,000)	29.9	26.9
Breast Cancer (Per 100,000)	21.9	20.2
Chronic Conditions		
High Blood Pressure (%)	24.6	23.6
Diabetes (%)	5.7	5.3
AIDS Rate (Per 100,000)	23.4	9.6
Life Expectancy (Years)		
	78.1	78.8

State	Ranking
Maryland	25
Delaware	23
District of Columbia	41
Pennsylvania	32
Virginia	28
West Virginia	45

Fifteen Leading Causes of Death

Between 1997 and 1998, the national ranking of the 10 leading causes of death remained the same. Changes occurred in the ranking of the bottom 5 of the top 15 causes. Septicemia rose from the 12th to the 11th rank, and Alzheimer's diseases dropped from 11th to 12th place. Homicide retained its ranking in the 13th position. Atherosclerosis moved from 15th to 14th place, and hypertension assumed the 15th position. For the first time since 1987, HIV infection did not rank among the top 15 leading causes of death for all age groups. However, the disease still ranks fifth for 25-44 year olds and first for black males in that age group.¹

In Maryland, between 1997 and 1998, two changes occurred in the ranking of the top 15 leading causes of death: Homicide surpassed HIV infection for the 9th position in 1998. (See Homicide section of this report for more information.) HIV infection dropped to the 10th position. Also, in 1998, Alzheimer's disease dropped to the 15th position, and perinatal conditions rose to the 14th place.^{2,3}

Age-Adjusted Death Rates

Between 1997 and 1998, national age-adjusted death rates decreased for the following 8 leading causes of death: atherosclerosis, homicide, Alzheimer's disease, cerebrovascular diseases, diseases of the heart, chronic liver disease and cirrhosis, suicide, and malignant neoplasms. Rates increased for the following causes: septicemia, hypertension, pneumonia and influenza, and chronic obstructive pulmonary disease (COPD).¹

In Maryland, between 1997 and 1998, age-adjusted death rates decreased for the following 9 causes: HIV infection, Alzheimer's disease, COPD, nephritis, suicide, heart diseases, malignant neoplasms, diabetes, and cerebrovascular diseases. Rates increased for: pneumonia

and influenza, chronic liver disease and cirrhosis, homicide, accidents, and perinatal conditions. The rate for septicemia remained about the same between 1997 and 1998.²

Age and Racial Differences

Nationally, for those aged 1-44 years, accident was the leading cause of death in 1998. Chronic diseases were the leading causes for the older age groups: cancer, for those aged 45-64 years, and heart disease, for those aged 65 years and over.¹ In Maryland, the leading cause of death varied by the following age groups: 1-14 (accidents), 15-24 (homicide), 25-64 (cancer), and 65 and older (heart disease).²

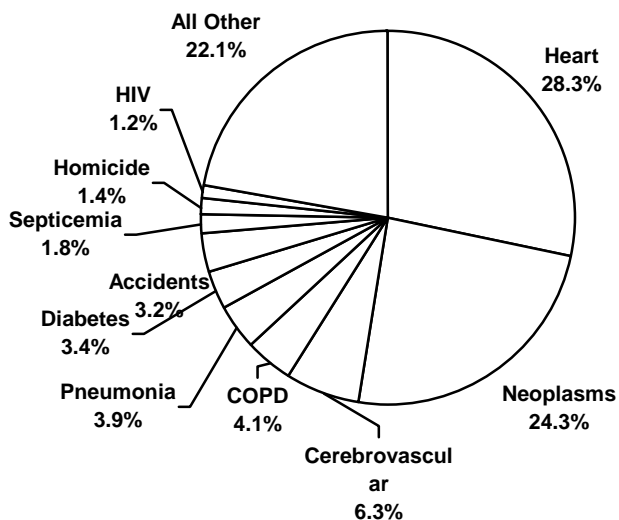
Nationally, seven of the leading causes were the same for the white and black populations, with some differences in ranking. For whites, suicide, chronic liver disease, and kidney disease were among the 10 leading causes of death. For blacks, homicide, HIV infection, and perinatal conditions were among the 10 top causes.¹

Maryland whites and blacks shared the same top three causes of death: heart disease, cancer, and cerebrovascular disease. The order of the remaining causes differed. For whites the order was: COPD, pneumonia/influenza, accidents, diabetes, septicemia, suicide, and chronic liver disease. For blacks the order was: diabetes, homicide, HIV, accidents, pneumonia/influenza, septicemia, and COPD.²

References

1. Murphy SL. "Deaths: Final Data for 1998." *National Vital Statistics Reports* 48(11). July 24, 2000.
2. Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. *Maryland Vital Statistics Annual Report 1998*.
3. Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. *Maryland Vital Statistics Annual Report 1997*.

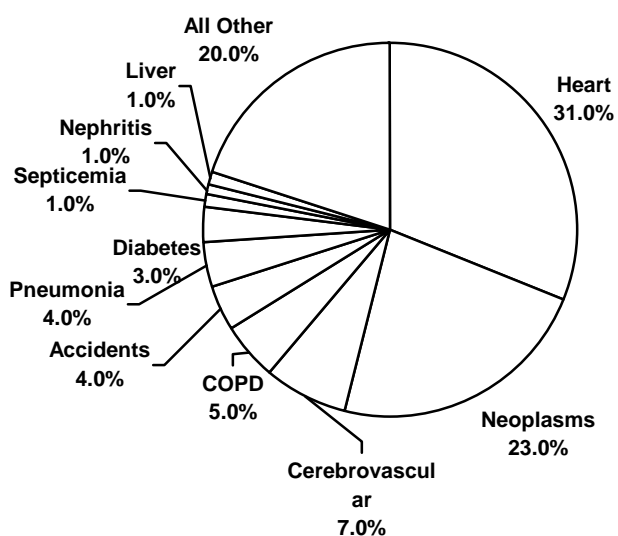
Leading Causes of Mortality in 1998: MD²



Age-Adjusted Rates Per 100,000 for the Top Fifteen Causes of Death in 1998: MD²

Heart disease	123.4
Malignant neoplasms	131.1
Cerebrovascular diseases	25.0
Chronic obstructive pulmonary diseases (COPD)	18.1
Pneumonia & influenza	14.2
Diabetes mellitus	17.0
Accidents & adverse effects	21.2
Septicemia	8.4
Homicide & legal intervention	12.5
Human immunodeficiency virus	8.7
Suicide	8.8
Nephritis	4.7
Chronic liver disease & cirrhosis	6.6
Perinatal conditions	8.2
Alzheimer's disease	2.6

Leading Causes of Mortality in 1998: US¹



Age-Adjusted Rates Per 100,000 for the Top Fifteen Causes of Death in 1998: US¹

Heart disease	126.6
Malignant neoplasms	123.6
Cerebrovascular diseases	25.1
Chronic obstructive pulmonary diseases (COPD)	21.3
Accidents & adverse effects	30.1
Pneumonia & influenza	13.2
Diabetes mellitus	13.6
Suicide	10.4
Nephritis	4.4
Chronic liver disease & cirrhosis	7.2
Septicemia	4.4
Alzheimer's disease	2.6
Homicide & legal intervention	7.3
Atherosclerosis	1.9
Hypertension with or without renal disease	2.4

Since 1921, heart disease has been the top cause of death in the United States. Stroke has maintained its rank as the third leading cause of death since 1938. In combination, these two causes account for 40 percent of all mortality in the country.¹

- The age-adjusted mortality rates for heart disease per 100,000 population have decreased by 56.0 percent from a high of 307.4 in 1950 to 134.6 in 1996. Between 1950 and 1996, the age-adjusted mortality rates for stroke decreased by 70.0 percent, from 88.8 to 26.5.¹

- Several factors have contributed to the decline in cardiovascular disease (CVD), including: a decline in cigarette smoking, a decrease in mean blood pressure levels, an increase in the percentage of persons with hypertension who receive treatment, a decrease in mean cholesterol levels, a decrease in the consumption of saturated fat and cholesterol, and improvements in medical care.¹

- The decline in age-standardized stroke mortality has varied among racial and ethnic subgroups. A 1997 study conducted by the Centers for Disease Control and Prevention (CDC) found an excess number of stroke-related deaths among non-Hispanic black, American Indians/Alaska Natives, Asians/Pacific Islanders, and Hispanics compared to non-Hispanic white adults, especially for those between the ages of 35 and 64.²

- In our analysis of the CDC data for 1998, we found disparities between stroke-related mortality rates for whites and blacks in three different age groups. This disparity was demonstrated in both the national and state samples. In Maryland, the largest gap in mortality rates occurred for individuals between the ages of 35 and 44. The mortality rate for blacks in this age group was 12.4 per 100,000 population, 3.9 times higher than the 3.2 mortality rate for whites.³

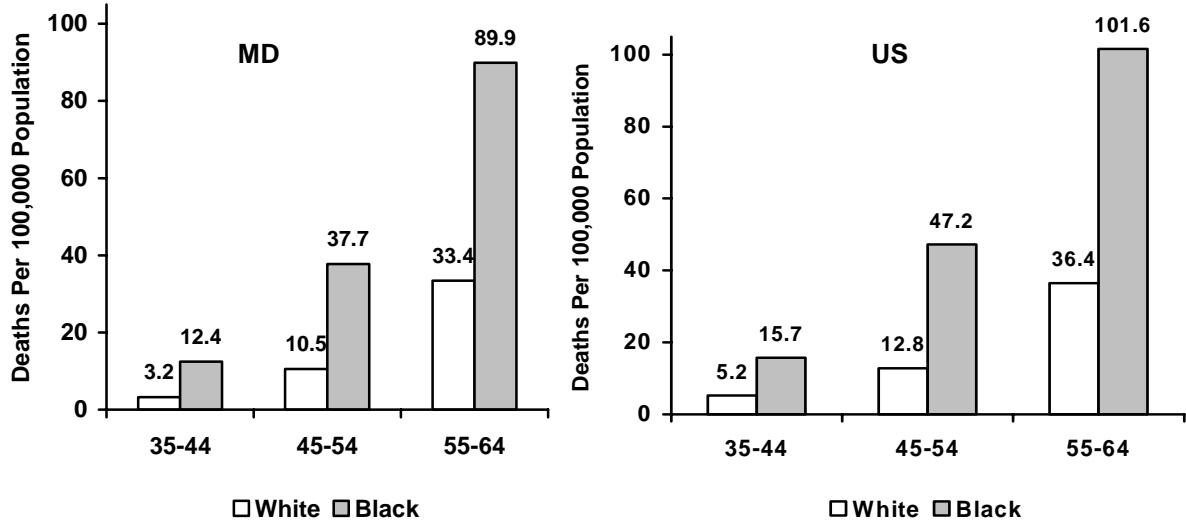
- Nationally, the racial gap in mortality also differed by age group. For individuals between the ages of 35 and 44, the mortality rate for blacks was three times higher than the rate for whites. For individuals aged 45 to 54, black mortality was nearly four times higher than white mortality. The racial gap narrowed for individuals aged 55-64. For this group, the mortality rate for blacks was 2.8 times higher than the rate for whites.³

- Maryland trend data show a better record for whites than blacks during the period 1996-1998. Data for blacks show an increase in mortality rate for those aged 45-54 and those aged 55-64. For the same period of time, the mortality rate of whites in the same age groups decreased. Between 1996 and 1998, blacks aged 35-44 experienced a drop in stroke mortality, whereas their white counterparts showed no change in risk of death. In contrast, for the same period of time, trend data for the United States showed a decrease in the mortality rate for blacks in all three age groups. The mortality rate for whites aged 35-44 increased during this period, but whites in the other two age groups experienced a decline in stroke mortality.^{4,5}

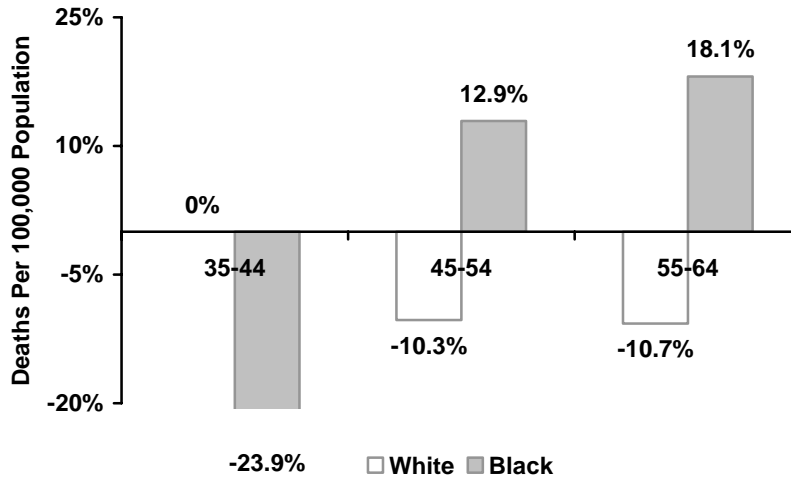
References

1. "Decline in Deaths from Heart Disease and Stroke -- United States, 1900-1999." *Morbidity and Mortality Weekly Report* 48(30):649-656. August 6, 1999.
2. "Age-Specific Excess Deaths Associated with Stroke Among Racial/Ethnic Minority Populations - United States, 1997." *Morbidity and Mortality Weekly Report* 49(5):94-97. February 11, 2000.
3. Centers for Disease Control and Prevention. WONDER (Compressed Mortality Data, 1998). wonder.cdc.gov/
4. U.S. Census Bureau. Ferret (Current Population Survey, July 1996, 1998). Ferret.bls.census.gov
5. Centers for Disease Control and Prevention. "Deaths From 282 Selected Causes, by 5-Year Age Groups, Race, and Sex: U.S. & Each State," 1995-1998. July 25, 2000.

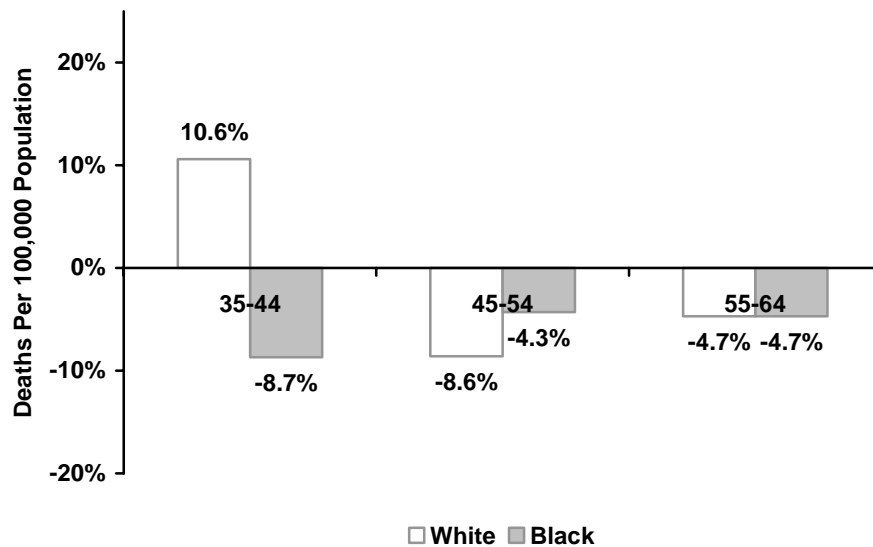
Age-Related Deaths Associated with Stroke: MD and US, 1998^{4,5}



Percent Change in Age-Related Deaths Associated with Stroke: MD, 1996-1998^{4,5}



Percent Change in Age-Related Deaths Associated with Stroke: US, 1996-1998^{4,5}



Homicides^a

- Nationally, the 1998 homicide rate per 100,000 population was 6.3, a drop of 7.4 percent from 1997. Overall, the homicide rate has been marked by a downward trend throughout the 1990s and has decreased by 35.7 percent since 1991.¹
- In 1998, the homicide rate in Maryland, 10 per 100,000 residents, was 1.59 percent higher than the national rate, 6.3 per 100,000. The homicide rate in Maryland has shown a downward trend during the 1990s, with a peak in 1993. In contrast, the national homicide rate has demonstrated a steeper decline throughout the decade.¹
- In Maryland, the homicide rate per 100,000 population increased by 1.0 percent between 1997 and 1998, despite a decrease of 14.7 percent between 1996 and 1997. Between 1991 and 1998, the rate decreased by 14.5 percent, with spikes throughout the period.¹ Homicide was the leading cause of mortality for Maryland residents aged 15 to 24 years in 1998, and the second leading cause of mortality for those aged 1 to 14 and those aged 25-34. The homicide rate was 4.6 times greater for males than for females, and 10.5 times greater for blacks than for whites. Homicide was the fifth leading cause of mortality for blacks in Maryland.²

Firearms^b

- Across the United States, 30,708 people died of firearms in 1998, 5.3 percent less than the number of deaths in 1997. The age-adjusted death rate from firearms also dropped between 1997 and 1998 -- by 7.4 percent (from 12.2 to 11.3 per 100,000 population).³

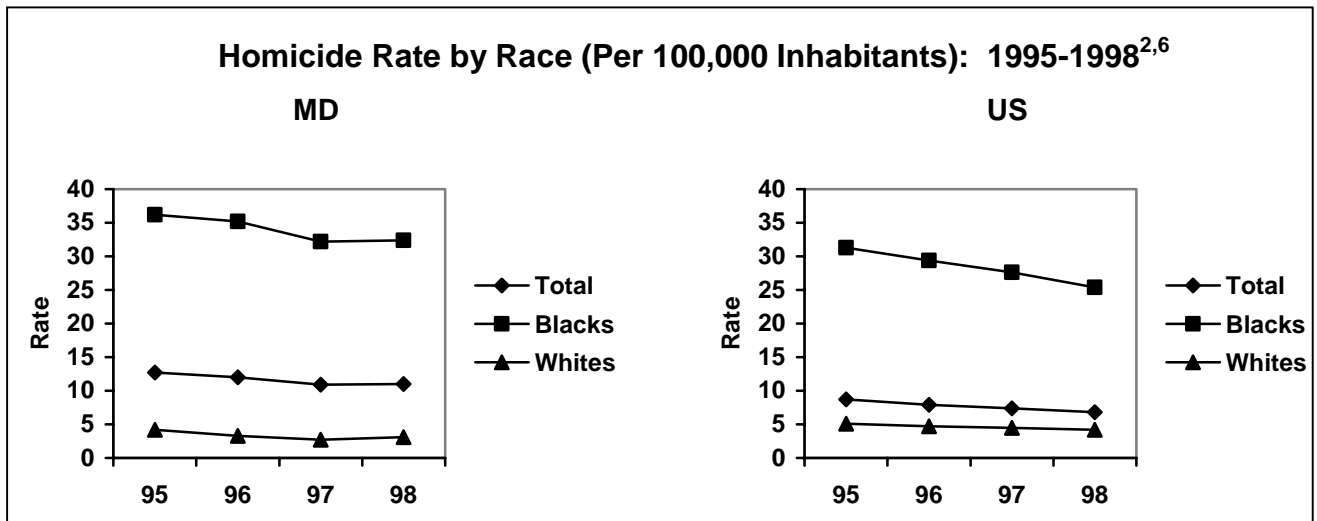
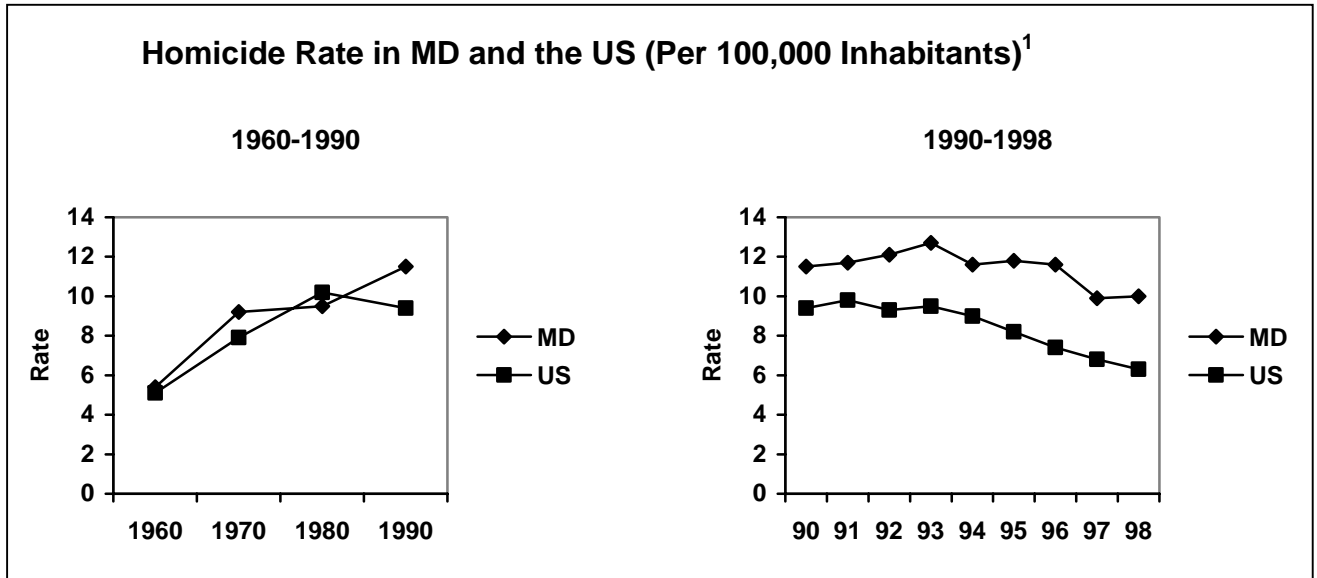
^a Definitionally, homicide and firearms mortality both include assault by firearms and legal intervention. Homicide encompasses deaths by other means as well.

^b Firearms mortality includes accident caused by firearm missile; suicide and self-inflicted injury by firearms; assault by firearms and legal intervention; and injury by firearms, undetermined whether accidentally or purposely inflicted.

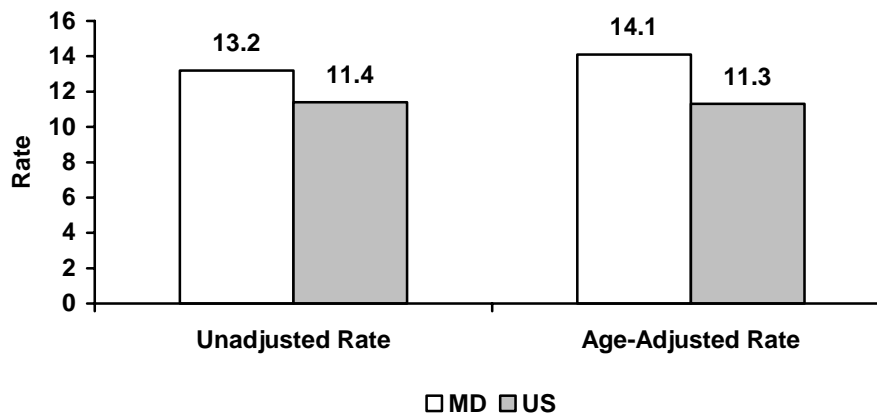
- In Maryland, 677 people died of firearms in 1998, a 4.6 percent drop from 1997. The age-adjusted death rate from firearms was 14.1 deaths per 100,000 population in 1998, a 5.4 percent drop from 14.9 in 1997.^{3,4}
- Nationally, firearm suicide and homicide accounted for 56.7 and 39.4 percent, respectively, of all firearm injury deaths in 1998. In 1998, U.S. children under 20 years accounted for 12.3 percent of all firearm deaths, despite the overall decline in childhood firearm mortality of 35 percent between 1994 and 1998.³
- In 1998, firearm suicide and homicide accounted for 38.6 and 59.2 percent, respectively, of all firearm injury deaths in Maryland.⁵ Firearms were the leading cause of death for Maryland residents aged 25 to 34 years, representing 16.9 percent of deaths in that age group.²
- In 1998, the national firearms mortality rate per 100,000 population for males was 5.9 times greater than the rate for females. The mortality rate for blacks was 2.4 times greater than the rate for whites.³ In Maryland, the 1998 mortality from firearms was 7 times greater for males than for females. Black mortality was nearly four times greater than white mortality.²

References

1. Federal Bureau of Investigation. Uniform Crime Reports. May 5, 2000.
2. Centers for Disease Control and Prevention. "Deaths From 282 Selected Causes, by 5-Year Age Groups, Race, and Sex: U.S. & Each State," 1995-1998. July 25, 2000.
3. Murphy SL. "Deaths: Final Data for 1998." *National Vital Statistics Reports* 48(11). July 24, 2000.
4. Hoyert DL, Kochanek KD, & Murphy SL. "Deaths: Final Data for 1997." *National Vital Statistics Reports*, 47(19). June 30, 1999.
5. Centers for Disease Control and Prevention. WISQARS (Injury Mortality Reports, 1998). <http://webapp.cdc.gov/sasweb/ncipc/leadcaus.html>
6. U.S. Census Bureau. "Population Estimates for States by Race and Hispanic Origin: July 1, 1999." www.census.gov/population/estimates/state/shr/shr99.txt



Death Rates for Injury by Firearm, MD and the US
(Per 100,000 Inhabitants): 1998³



Drug Abuse

■ The economic impact of drug abuse is an estimated \$67 billion a year in costs related to crime, medical care, drug abuse treatment, social welfare programs, and time lost from work.¹ Baltimore has one of the worst crack/cocaine epidemics in the United States and leads all other cities in the use of heroin, according to a recent report by the Drug Enforcement Agency (DEA). The use of the designer club drug Ecstasy (MDMA) has also increased rapidly in Baltimore, especially among suburban residents who buy the drug in the city.²

■ In Baltimore there are an estimated 60,000 addicts, representing 10.0 percent of the city's population. According to police, drugs play a role in eight of every ten homicides in Baltimore.² During the 1990s, drug overdose deaths in Maryland increased by 180.0 percent, and in 1999, drug overdose resulted in more deaths than homicide in the city of Baltimore.³

■ Nationally, there was no significant increase in the number of marijuana/hashish related emergency department (ED) admissions between 1998 and 1999. However, during the same period of time this number increased by 12 percent in Baltimore.⁴

■ Among the 21 metropolitan areas sampled by Drug Abuse Warning Network, Baltimore^a has had the highest rates of ED episodes involving cocaine (since 1992) and heroin/morphine (since 1994).⁴ During 1999, the highest rates of drug episodes per 100,000 population occurred in Baltimore for: all drug episodes (605), cocaine (296), heroin/morphine (299).⁴

HIV/AIDS

■ The 1999 incidence rate of AIDS per

100,000 population in Maryland was 29.5, a decrease of 7.2 percent from the rate of 31.8 in 1998. Nationally, the rate was 16.7, a decrease of 4 percent from the 1998 rate of 17.4. The AIDS rate in Maryland ranks fourth in the nation, after the District of Columbia, New York, and Florida.⁵

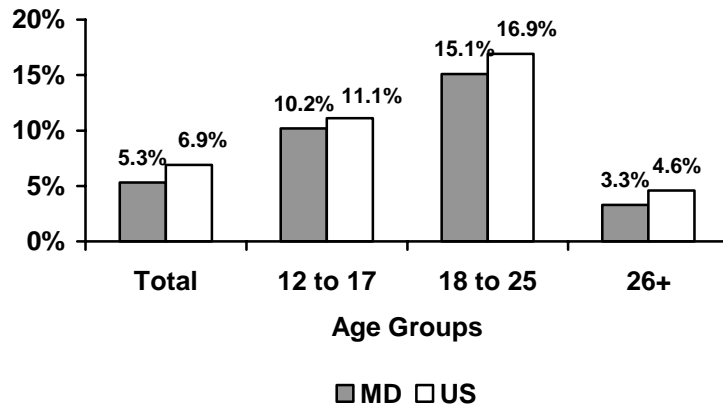
■ Nationally in 1999, 82.0 percent of those infected with AIDS were men, 18.0 percent were women, and 1.0 percent were children younger than 13. Additionally, 43.0 percent were white, 37.0 percent were black, and 18.0 percent were Hispanic. During the 1990s, the percentage of AIDS cases in blacks, Hispanics, and women has been growing.⁵ As of November, 1999, Maryland recorded its 20,000th AIDS case. Of all Maryland residents with AIDS alive in 1999, 71.5 percent were male, 79.1 percent were black, and 1.8 percent were children under the age of 13. During the 1990s, most AIDS cases were located in Baltimore City (53.0-54.0 percent), Prince George's County (16.0 percent), and Montgomery County (7.0-8.0 percent).⁶

References

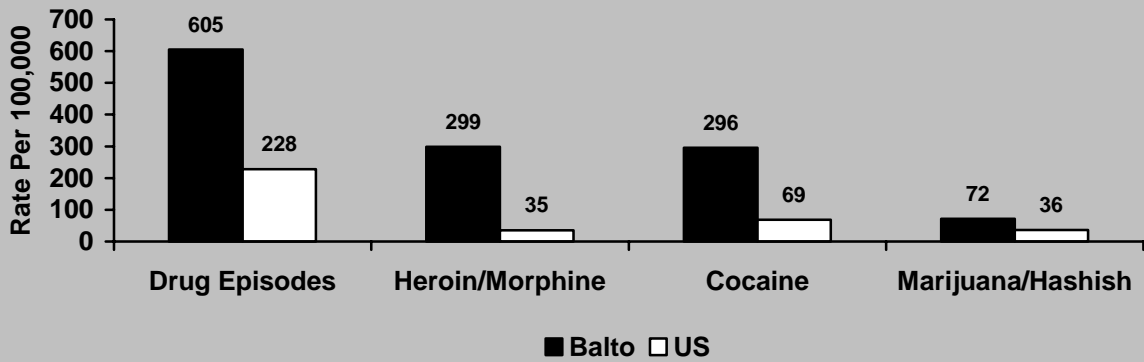
1. National Institute on Drug Abuse, National Institutes of Health. "Infobox: Treatment Methods." www.nida.nih.gov/infobox/treatmeth.html
2. "Drugs Worsen in City, U.S. Says." *Baltimore Sun*. July 31, 2000.
3. "Overdose Deaths Exceed Slayings." *Baltimore Sun*. September 15, 2000.
4. Substance Abuse & Mental Health Services Administration, Office of Applied Studies. *Year-End 1999 Emergency Department Data from the Drug Abuse Warning Network*. August 31, 2000.
5. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, December, 1994-1999*.
6. "Maryland's First 20,000 AIDS Cases." Maryland AIDS Administration. November, 1999.
7. Substance Abuse & Mental Health Services Administration, Office of Applied Studies. *Summary of Findings from the 1999 National Household Survey on Drug Abuse*. August 31, 2000.
8. U.S. Census Bureau. "Metropolitan Area Population Estimates for July 1, 1998 and July 1, 1999 and Population Change for July 1, 1998 to July 1, 1999." www.census.gov/population/estimates/metro-city/ma99-02.txt

^a The Baltimore Metropolitan Area boundaries correspond to the Office of Management and Budget definitions of Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas.

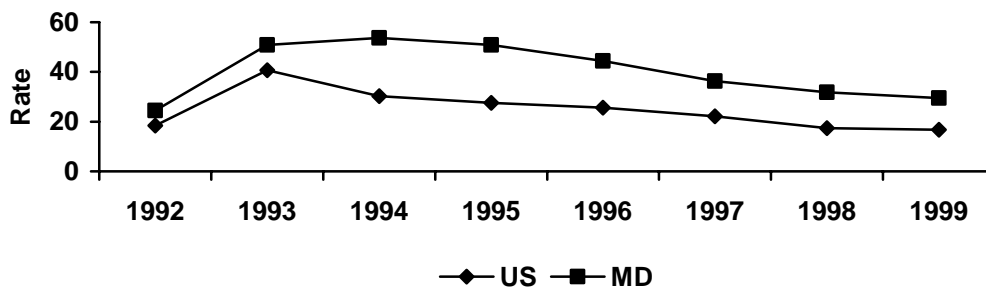
Percentages Reporting Past Month Use of Any Illicit Drug, 1999: MD & US⁷



Estimated Number of Emergency Department Drug Episodes & Mentions of Selected Drugs for Baltimore^a and US (Per 100,000 Population): 1999^{4,8}



Annual Incidence Rates of AIDS Per 100,000 Population, 1992-1999: MD and US⁵



Prevalence

Obesity has become an increasingly prevalent phenomenon since the 1980s. According to recent estimates, obesity has increased by more than 25.0 percent over the past three decades, and 1 in 2 adults in the United States is now considered to be overweight or obese.^a A study based on the Third National Health and Nutrition Examination (NHANES III) data collected in 1988 and 1994 found that 63.0 percent of men and 55.0 percent of women aged 25 or older are overweight or obese.¹

Data from the Behavioral Risk Factor Surveillance Survey (BRFSS) indicate that the prevalence of obesity nationwide increased from 12.0 percent in 1990 to 17.9 percent in 1998. While Body Mass Index (BMI) increased across both sexes and all sociodemographic groups, the greatest increase occurred among the young and highly educated populations.²

Obesity increased in prevalence across all states from 1991 to 1998. In particular in Maryland, the prevalence increased by 75.0 percent during this time frame, from 11.2 percent in 1991 to 19.8 percent in 1998. These prevalence estimates are probably conservative.²

The prevalence of obesity continued to increase between 1998 and 1999 to 18.9 percent nationwide, an increase of 5.6 percent in one year and an increase of 57.0 percent from 1991. None of the 45 states participating in the 1991 BRFSS had obesity rates of 20.0 percent or greater. However, such rates occurred in 7 states in 1998 and in 16 states in 1999.³

Public Health Consequences

Increases in the prevalence of obesity will have a dramatic effect on public health because obesity is associated with chronic

conditions, such as cardiovascular disease, Type II diabetes mellitus, hypertension, stroke, dyslipidemia, osteoarthritis, and some cancers. A study using NHANES III data found strong associations for overweight and obesity with Type II diabetes and hypertension as well as significantly increased prevalence for both of these conditions even among persons who were overweight, but not obese. This finding is particularly significant because more than 42.0 percent of men and 28.0 percent of women in the United States are at least mildly overweight.¹

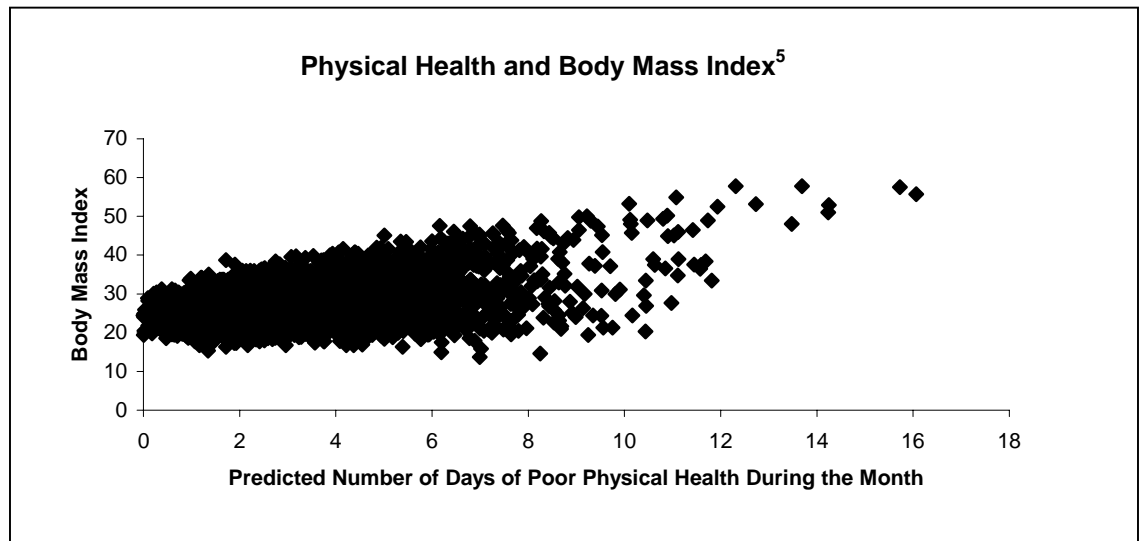
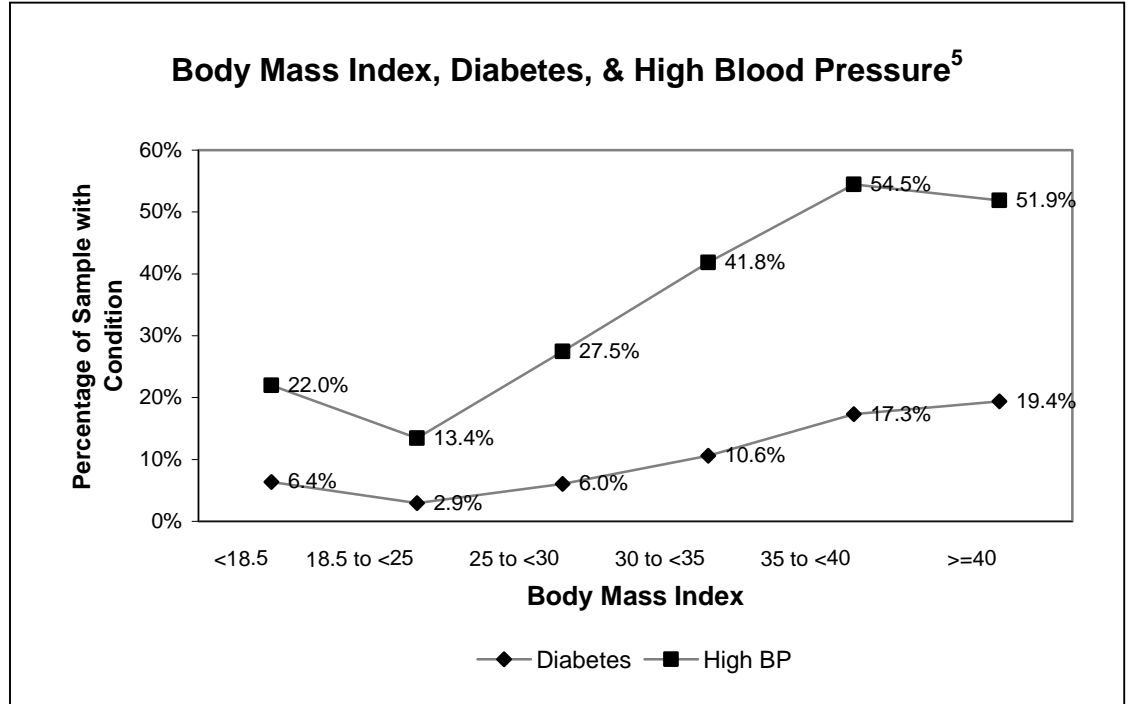
Another study based on 6 major national sets estimated that, nationally, 280,000 obesity-attributable deaths occurred in 1991. Individuals with a BMI of at least 30 were the most likely to suffer deaths attributable to excess weight.⁴ In 1999, 17.2 percent of Maryland adults had a BMI of at least 30.⁵

Considering several risk factors simultaneously for Maryland residents, MHCC analyses found that the odds of developing diabetes increase by 3.4 for each unit increase in BMI above the average (i.e., 26.1). We also found that number of days of poor physical health, self-reported by respondents, tends to increase with BMI. High blood pressure also tends to increase with BMI, but this effect levels off.⁵

References

1. Must A et al. "The Disease Burden Associated with Overweight and Obesity." *Journal of the American Medical Association*, 282(16): 1523-1529. October 27, 1999.
2. Mokdad AH et al. "The Spread of the Obesity Epidemic in the United States, 1991-1998." *Journal of the American Medical Association*, 282(16):1519-1522. October 27, 1999.
3. Mokdad AH et al. "The Continuing Epidemic of Obesity in the United States." *Journal of the American Medical Association*, 284(13):1650-1651. October 4, 2000.
4. Allison DR et al. "Annual Deaths Attributable to Obesity in the United States." *Journal of the American Medical Association*, 282(16): 1530-1538. October 27, 1999.
5. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance Survey 1996-99.

^a Overweight is a BMI between 25 and 30. Obese is a BMI of 30 or higher.



Prevalence

■ One of the major sources of morbidity and mortality in the United States is diabetes, particularly Type-II^a which accounts for 90.0 to 95.0 percent of all cases. In 1997, an estimated \$98 billion was spent on diabetes-related costs.¹ Recent analyses show growth in the national incidence and prevalence of diabetes.²

■ Nationally, diabetes increased in prevalence by 32.7 percent during the 1990s, from 4.9 percent of the population in 1990 to 6.5 percent in 1998, representing 12 million people.² The 1998 national age-adjusted prevalence for men was 7.8 percent, and for women it was 9.0 percent. The sex-age-race standardized prevalence of diabetes increased by 20.0 percent between 1990 and 1998 from 4.9 to 5.9 percent. Parallel to the increasing prevalence of diabetes during this period was an increase in the weight of both men and women. In 1998, the rank correlation between diabetes prevalence and obesity was 0.64.²

■ Although diabetes prevalence increased during the 1990s across all sociodemographic groups in United States, people between the ages of 30 and 39 and individuals with higher educational levels demonstrated the highest increases (76.0 and 47.0 percent, respectively).² Major risk factors for the development of diabetes are body mass index (BMI) and weight gain. The impact of obesity on diabetes will be felt more strongly as the years progress because weight-gain precedes the development of diabetes.²

■ In Maryland, the prevalence of diabetes in adults has increased by 31.1 percent throughout the 1990s, with an increase of 10.0 percent between 1998 and 1999. The prevalence of diabetes has increased more sharply for females than for males in Maryland. Between 1994 and 1999, the

increase for males was 25.0 percent, up from 4.8 percent of all males in 1994 to 6.0 percent of all males in 1999. For the same period of time, the increase in prevalence for females was 53.1 percent, ranging from 4.9 percent of all females in 1994 to 7.5 percent of all females in 1999.³

Mortality

■ Between 1995 and 1998, mortality from diabetes among Maryland residents increased by 3.7 percent, compared to an increase of 6.7 percent nationwide. The 1998 death rate per 100,000 population in Maryland varied greatly by age group, ranging from 0 for those under the age of 20 to 339.0 for those aged 80 or older. The diabetes mortality rate for individuals aged 50-59 was over four times the rate for individuals aged 40-49.^{4,5}

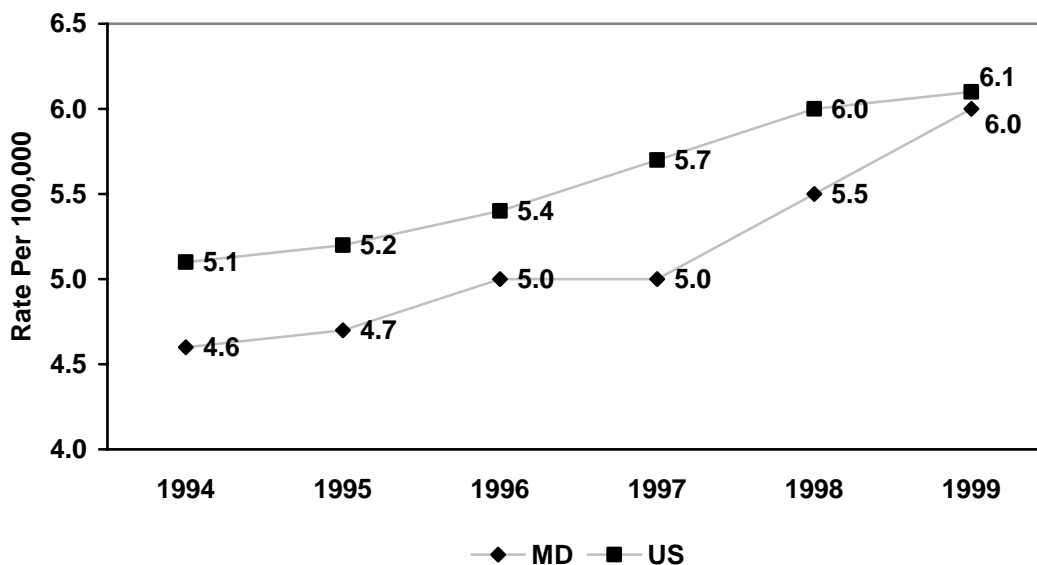
■ Black residents of Maryland were 1.3 times more likely to die from diabetes than whites in 1998; specifically, the mortality rate for blacks was 34.5 per 100,000 population compared to 26.7 for whites. Female residents of Maryland were 1.2 times more likely to die from diabetes than males in 1998. The mortality rate for females was 30.8 per 100,000 population compared to 25.3 for males.^{4,5}

References

1. Adler J & Kalb C. "An American Epidemic: Diabetes." *Newsweek*, pp. 40-47. September 4, 2000.
2. Mokdad AH et al. "Diabetes Trends in the U.S.: 1990-1998." *Diabetes Care*, 23(9):1278-1283. September, 2000.
3. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance Survey 1992-1999.
4. U.S. Census Bureau. "Population Estimates for the U.S., Regions, Divisions, and States by 5-Year Age Groups and Sex: Time Series Estimates, July 1, 1990 to July 1, 1999 and April 1, 1990 Census Population Counts." www.census.gov/population/estimates/state/st-99-08.txt
5. U.S. Census Bureau. "Population Estimates for States by Race and Hispanic Origin: July 1, 1999." www.census.gov/population/estimates/state/srh/shr99.txt

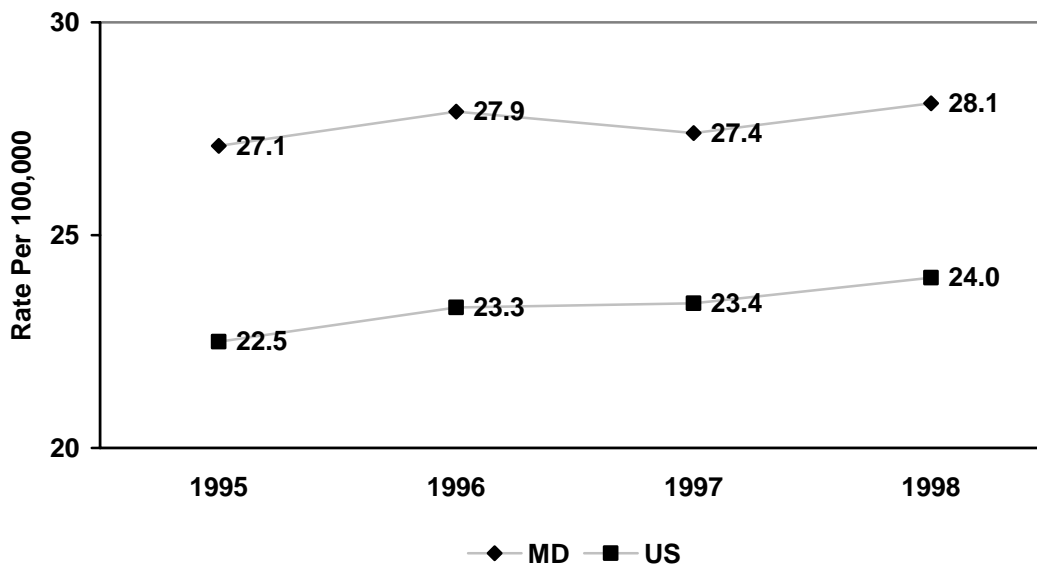
^a Non-insulin dependent, adult-onset, or insulin-resistant diabetes.

**Diabetes Prevalence by 3-Year Moving Averages:
Maryland and the United States³**



Note: Three-year moving averages are calculated using data for the year of interest and the two preceding years. For instance, the average for 1999 includes data for 1997, 1998, and 1999.

**Diabetes Mortality Rate Per 100,000 Population:
Maryland and the United States^{4,5}**



Cancer Incidence

■ In 1997, a total of 22,305 new cancer cases were diagnosed and reported in Maryland. The state's cancer incidence rate for 1997 was 433.1 per 100,000 population, a 1.3 percent increase from 1996.^{1,2} In contrast, the national cancer incidence rate declined by 0.33 percent from 1996 to 395.0 per 100,000 population.

■ The 1997 cancer incidence rate for Maryland men, 509.3 per 100,000 population, was virtually identical to the rate in 1996.^{1,2} Nationally, the incidence rate for men decreased by 1.7 percent from 1996 to 456.2.³ The cancer incidence rate for Maryland women, 379.8 per 100,000 population, was 2.5 percent higher than the rate in 1996.^{1,2} Nationally, the incidence rate for women was 352.0, an increase of 1.0 percent from 1996.³

■ Maryland's 1997 cancer incidence rate for whites was 404.2 per 100,000 population, and the rate for blacks was 432.8, a differential of 7.1 percent.⁴ Nationally, the 1997 incidence rate for whites was 395.2 per 100,000 population, while the rate was 434.3 for blacks, a differential of 9.9 percent.³ Maryland's 1997 cancer incidence rate ranged from 323.4 per 100,000 population in Garrett County to 518.3 in Somerset County. Cancer incidence in 10 jurisdictions surpassed the state average, while incidence in 14 jurisdictions was below the state average.¹

Cancer Mortality

■ A total of 10,092 Maryland residents died of cancer in 1997. Maryland's cancer mortality rate for 1997 was 174.9 per 100,000 population, a decrease of 2.6 percent from 1996.¹ Maryland ranks eighth in the nation in its average annual age-adjusted cancer mortality rate for the period 1993-1997. Nationally, the cancer mortality rate in 1997 was 163.7, a decrease of 1.7

percent from 1996. The national age-adjusted mortality rates, per 100,000 population, for the top four sites were: lung and bronchus (48.3), female breast (23.3), prostate (22.5), and colon and rectum (16.4).³

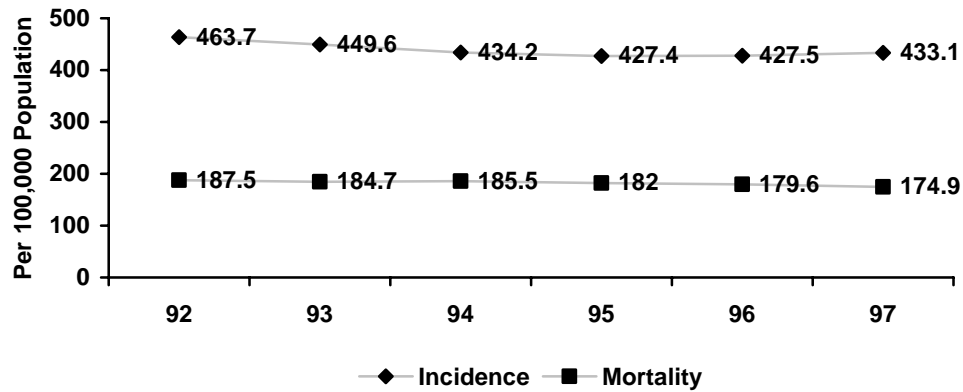
■ In 1997, 51.3 percent of all cancer deaths in Maryland were among men. The cancer mortality rate for Maryland men was 215.7 per 100,000 population, a decrease of 4.8 percent from 1996.^{1,5} Nationally, the cancer mortality rate for men was 201.9 per 100,000 population, a decrease of 2.3 percent from 1996.³ The 1997 cancer mortality rate for Maryland women was 147.5 per 100,000 population, a decrease of 0.4 percent from 1996.^{1,4} Nationally, the 1997 cancer mortality rate for women was 137.0, a decrease of 1.4 percent from 1996.¹

■ The 1997 cancer mortality rate for Maryland whites was 164.6, and for blacks it was 228.9, a differential of 39 percent.⁶ Nationally, the cancer mortality rate for whites was 160.6 per 100,000 population compared to 213.0 for blacks, a differential of 33 percent.³ Maryland's cancer mortality rate ranged from 128.6 per 100,000 population in Talbot County to 243.0 in Somerset County.¹

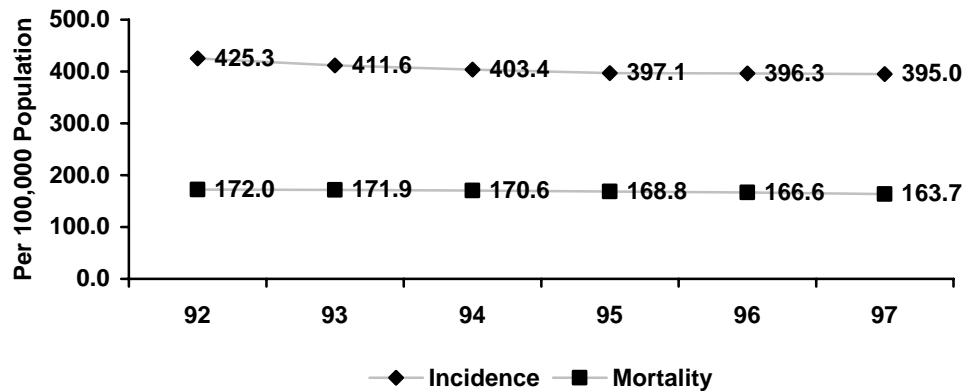
References

1. Maryland Cancer Registry, Maryland Department of Health and Mental Hygiene, 2000.
2. Maryland Cancer Registry, Maryland Department of Health and Mental Hygiene. *Cancer Incidence Data Report 1996*. September 27, 1998.
3. National Cancer Institute. *SEER Cancer Statistics Review, 1973-1997*. June, 2000.
4. Maryland Cancer Registry, Maryland Department of Health and Mental Hygiene. *Cancer Incidence in Maryland 1997*. October, 1999.
5. Maryland Cancer Registry, Maryland Department of Health and Mental Hygiene. *Cancer Mortality Data Report 1996*. February 16, 1999.
6. Maryland Cancer Registry, Maryland Department of Health and Mental Hygiene. *Cancer Mortality in Maryland 1997*. October, 1999.
7. National Center for Health Statistics, vital statistics data, underlying cause of death, 1992-1996.

**Age-Adjusted Cancer Incidence and Mortality Rates
(for all Sites): MD 1992-1997¹**



**Age-Adjusted Cancer Incidence and Mortality Rates
(for all Sites): US 1992-1997¹**



**Average Annual Age-Adjusted Mortality Rates Per
100,000 Population for Selected Types of Cancer
for MD and the US: 1992-1996⁷**

